

United States Environmental Protection Agency
Region 9

In the Matter of :

Iron Mountain Mine

Iron Mountain Mines, Inc.,
T.W. Arman,

Rhone-Poulenc Basic Chemicals Co.

Respondents

Proceeding under Section 106 of the
Comprehensive Environmental Response,
Compensation and Liability Act of 1980,
as amended by the Superfund Amendments
and Reauthorization Act of 1986,
(42 U.S.C. § 9606)

Order No. 92-26

ADMINISTRATIVE ORDER
FOR REMOVAL ACTION

I. INTRODUCTION AND JURISDICTION

1. This Order directs Respondents to conduct necessary design and construction activities described in the Action Memorandum for the Iron Mountain Mine site, dated September 2, 1992, and to operate and maintain the emergency response treatment plant and disposal unit described in the Action Memorandum. This Order is issued to Respondents by the United States Environmental Protection Agency ("EPA") under the authority vested in the President of the United States by section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9606(a). This

1 authority was delegated to the Administrator of EPA on January
2 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926, January
3 29, 1987), and was further delegated to EPA Regional
4 Administrators on September 13, 1987 by EPA Delegation
5 No. 14-14-B. The Regional Administrator redelegated this
6 authority to the Director, Hazardous Waste Management Division.

7 II. FINDINGS OF FACT

8 2. Iron Mountain Mine ("IMM" or "the Site") is located in the
9 southeastern foothills of the Klamath Mountains, approximately
10 nine miles northwest of the City of Redding. Between the 1860's
11 and 1963, IMM was periodically mined for iron, silver, gold, cop-
12 per, zinc, and pyrite. The mine area is located on 4,400 acres
13 of property that includes an open pit mine, underground workings,
14 waste rock dumps and tailings piles.

15 IMM averages 70-80 inches of precipitation per year, most of
16 it falling in the form of rain between the months of November and
17 April.

18 IMM is drained by Boulder Creek to the north, and Slickrock
19 Creek to the south of the mine. Boulder Creek, a perennial
20 stream, receives a portion of its flows from the Lawson and Rich-
21 mond adits via their mine portals. The Richmond and Lawson adits
22 are the two principal sources of acid mine drainage at Iron
23 Mountain. Slickrock Creek, an intermittent stream, receives
24 discharges from underground seepage and surface flows from the
25 Brick Flat Pit area. A debris slide diverted the original
26 Slickrock Creek drainage and buried adits from which acid mine
27 drainage is emanating.

28 Slickrock Creek and Boulder Creek flow southeastward into

1 Spring Creek, which flows into the Spring Creek Reservoir,
2 created by the construction in 1963 of the Spring Creek Debris
3 Dam, a unit of the Central Valley Project. Releases from Spring
4 Creek drain into Keswick Reservoir, where they mix with releases
5 of clean water from Shasta Dam.

6 3. The respondents identified in this paragraph are
7 collectively referred to as "Respondents."

8 A. T.W. Arman and Iron Mountain Mines, Inc. (IMMI),
9 Respondents are the current owners and operators of Iron Mountain
10 Mines, and have been the owners and operators since about
11 December, 1976.

12 B. Rhone-Poulenc Basic Chemicals Co., Respondent, is the
13 legal successor to Mountain Copper Co., Ltd. and Stauffer
14 Chemical Co. Mountain Copper was the owner and operator of the
15 facility from approximately 1896 to 1967, and continued to own
16 portions of the facility until 1980. Stauffer Chemical Co.
17 owned and operated the facility from approximately 1967 to 1976,
18 and through its wholly owned subsidiary Mountain Copper,
19 continued to own portions of the facility until 1980. During
20 the time that Mountain Copper owned and operated the facility,
21 hazardous substances, including some or all of those described in
22 this section, were disposed of at the Site. This disposal at the
23 facility resulted in releases from the facility into the
24 environment. Releases of hazardous substances into the
25 environment continued during the period Stauffer Chemical Co.
26 owned and operated the facility. Among other actions, both
27 Mountain Copper and Stauffer Chemical Co. owned and operated a
28 copper cementation plant. Effluent from the plant contained

1 copper, cadmium and zinc and was released into surface waters.

2 4. On September 8, 1983, pursuant to section 105 of CERCLA, 42
3 U.S.C. § 9605, EPA placed the Site on the National Priorities
4 List, set forth at 40 C.F.R. Part 300, Appendix B.

5 5. In September, 1983, pursuant to CERCLA and the National
6 Contingency Plan, 40 C.F.R. Part 300, EPA commenced a Remedial
7 Investigation and Feasibility Study ("RI/FS") to study and
8 evaluate potential remedies for the Site. During the course of
9 that investigation, which extended from September 1983 to April
10 1985, EPA conducted weekly sampling of five major sources at the
11 mine and three locations on Spring Creek, and biweekly sampling
12 at four locations along the Sacramento River for heavy metals;
13 installed flow measurement stations at eight locations, including
14 mine portals and downstream receiving waters; measured
15 precipitation at six gauges throughout the area; reviewed all
16 existing literature on the site; conducted a groundwater
17 investigation; and conducted two comprehensive surface sampling
18 surveys, involving 76 sampling points, in September 1983 and
19 December 1983.

20 During a dry period in September 1983 and a rainy period in
21 December 1983 EPA conducted the two intensive sampling programs
22 to locate and quantify the sources of heavy metals pollution at
23 the IMM. The Regional Board conducted sampling in April 1983
24 which reflect usual late winter conditions when the mountain is
25 saturated. The sampling station locations are identified in
26 Figure 2 of the Record of Decision. The rankings of the heavy
27 metals contribution for copper, cadmium and zinc are shown in
28 Figure 3 of that document.

1 The RI identified five major sources as responsible for ap-
2 proximately seventy two percent of the copper and eighty six per-
3 cent of the zinc and cadmium being discharged from the site
4 during the sampling period. These sources were: the Richmond Por-
5 tal, the Lawson portal, Old Mine/No. 8 seep, Big Seep, and the
6 Brick Flat Pit By-Pass. In addition to the five major sources,
7 EPA identified numerous other sources of releases of metals and
8 acid mine drainage at the Site. The studies completed by EPA in
9 1983 show that the flow of acid mine drainage through tailings
10 piles on the IMM property is also contributing to metals con-
11 tamination. EPA published notice of the completion of the FS and
12 of the proposed plan for remedial action and provided opportunity
13 for public comment on the proposed remedial action.

14 6. On October 3, 1986, Assistant Administrator J. Winston
15 Porter approved a Record of Decision for the Site. The ROD
16 approved for the Site authorized the following activities: the
17 construction of a cap over the Richmond mineral deposit to reduce
18 infiltration into this source of acid mine drainage; diversion of
19 clean surface water from the Upper Spring Creek watershed before
20 it reaches the portion of the basin affected by IMM; diversion of
21 clean water from the South Fork of Spring Creek; diversion of
22 clean water from Upper Slickrock Creek; enlargement of the Spring
23 Creek Debris Dam; installation of necessary perimeter controls;
24 and conducting a study to better define the use of low density
25 cellular concrete to minimize the formation of acid mine
26 drainage.

27 7. As part of its ongoing efforts to control the acid mine
28 drainage from Iron Mountain, EPA conducted an operable unit

1 feasibility study to develop remedial alternatives for the acid
2 mine drainage releases in the Boulder Creek watershed. On May
3 20, 1992, EPA published a proposed plan and allowed for sixty
4 days of public comment on the proposed plan. EPA's preferred
5 alternative identified in the proposed plan was the construction
6 and operation of a treatment plant on an interim basis until a
7 permanent remedy could be selected. All of the alternatives
8 analyzed in detail in the Feasibility Study required the
9 construction of a comparable plant. At the time of the Action
10 Memorandum and this order, EPA had not yet selected the remedial
11 action. EPA has concluded, however, that it is not feasible to
12 construct such a treatment plant prior to the winter of 1992-93.

13 8. The hazardous substances released at the Site include
14 copper, cadmium, zinc and sulfuric acid.

15 9. The 1992 Remedial Investigation report, summarizes the data
16 which shows the concentration, volume and historic patterns of
17 releases of acid mine drainage from the Iron Mountain Mines.

18 10. Historic mining activity at IMM has fractured the mountain
19 increasing access of surface water and rain water and oxygen to
20 the mineralized zones within the mine. The rubblizing of the
21 mine workings has contributed to the formation of acid mine
22 drainage in the mine. Precipitation and surface water
23 infiltrating the mountain forms sulfuric acid in the presence of
24 oxygen due to the oxidation of the pyrite. The sulfuric acid is
25 drained by the mine workings and leaches out copper, cadmium,
26 zinc and other metals. This heavy metal laden acid mine drainage
27 flows out of the mine portals and seeps. Much of the metals
28 bearing acid mine drainage is ultimately channeled by the creeks

1 into the Spring Creek Reservoir. The Bureau of Reclamation
2 periodically releases the stored acid mine drainage impounded
3 behind Spring Creek Debris Dam into Keswick Reservoir. Planned
4 releases are timed to coincide with the presence of diluting
5 waters from Shasta Dam. On occasion, unplanned spills and
6 excessive waste releases have occurred from Spring Creek Debris
7 Dam, resulting in the release of harmful quantities of metals in
8 the Sacramento River.

9 11. The Sacramento River is a valuable fisheries resource and
10 is used as a source of drinking water by the City of Redding,
11 with a population of over 50,000. The Central Valley Regional
12 Board adopted water quality standards applicable to the
13 Sacramento River and the tributaries which flow into the
14 Sacramento River from IMM on April 27, 1984. The State Water
15 Resources Control Board and the EPA subsequently approved these
16 standards. These standards limit dissolved concentrations of
17 cadmium (0.00022 mg/l), copper (0.0056 mg/l), zinc (0.016 mg/l),
18 and pH (6.5 to 8.3 with a maximum deviation of 0.3 units from
19 ambient conditions). The California Fish and Game has identified
20 these levels of metals as protective of all life stages of
21 anadromous salmon and steelhead below Keswick Dam. These
22 recommended levels were adopted by the Regional Board as Basin
23 Plan objectives for the Keswick Dam area and approved by the
24 State Board in August, 1984. EPA approved the objectives under
25 CWA 303 on August 7, 1985. EPA Water Quality Criteria for
26 protection of aquatic life below Keswick Dam are cadmium (0.00055
27 mg/l), copper (0.0054 mg/l), and zinc (0.047 mg/l).

28 The continuous release of metals from IMM and the

1 exceedances of water quality standards caused by the continuing
2 release have contributed to a steady decline in the fisheries
3 population in the Sacramento River. The major fishery resources
4 of the Sacramento River below Keswick Dam include migratory
5 populations of salmon and steelhead and resident populations of
6 wild trout. The adult salmon and steelhead migrate from the ocean
7 to the river where they reproduce. The young remain in the river
8 through the juvenile life stage or sometime longer in the case of
9 steelhead. Metal laden discharges from the Spring Creek Basin
10 frequently occur at the time of year that the salmonoid life
11 stage most sensitive to metal toxicity is abundant in the river.

12 The estimated monetary value of the chinook salmon and
13 steelhead trout runs produced downstream of the Iron Mountain
14 Mine discharge and upstream from the Red Bluff Diversion dam is
15 \$33.7 million annually. The economic value of these fishery
16 resources, once restored, is expected to increase to \$72 million
17 annually. The metals from IMM have contributed to fish kills as
18 well as incidents of sublethal toxicity which reduce the overall
19 productivity of the population, including effects such as reduced
20 growth rates, physiological problems, and diminished immune
21 response.

22 In the California Department of Fish and Game's letter
23 requesting EPA assistance with the then impending fish emergency
24 for the winter of 1989-90, he stated that "It is well documented
25 that drainage from Iron Mountain Mine contains concentrations of
26 metals and acid toxic to fish and other aquatic life. Fishery
27 resources vulnerable to destruction include four races of chinook
28 salmon, steelhead, and rainbow trout. The chinook salmon

1 include: the winter-run chinook, which is going to be listed as a
2 State endangered species and a Federal threatened species;
3 spring-run and late fall-run chinook, which are both at low
4 population levels; and the fall-run chinook, which is the stock
5 that supports California's important sport and commercial salmon
6 fishery. Last year the spawning grounds that were protected from
7 fish kills from Iron Mountain Mine produced over 30 million
8 dollars worth of salmon. Historic fish kills have destroyed fish
9 that are life stages between embryo and adult in as little as a
10 48-hour exposure period. Fish kills impact the sport and
11 commercial salmon fisheries in future years." The Department of
12 Fish and Game estimated the economic value of the fall run
13 chinook population in the area impacted by the mine discharge as
14 over \$30 million for 1988 and stated that an extremely popular
15 sport fishery is supported by the fall-run and resident rainbow
16 trout.

17 In recent years, recurring drought conditions have under-
18 scored the importance of water conservation in California. The
19 continued need to rely upon water from Lake Shasta and Keswick
20 Reservoir to mitigate the impacts of acid mine drainage renders
21 significant quantities of water unavailable for beneficial uses,
22 resulting in a significant adverse impact on the human environ-
23 ment. An estimated 64,000 acre feet were released in March, 1989
24 to prevent a massive fish kill. In the spring of 1992, the
25 United States Bureau of Reclamation released an estimated 95,000
26 acre feet to dilute the toxic discharges from Iron Mountain Mines
27 which had overflowed the capacity of Spring Creek Debris Dam.
28 During a late winter storm it normally requires a Shasta release

1 40 to 50 times that of Spring Creek to provide non-toxic
2 conditions for salmon.

3 Near its source, the acid mine drainage contains sulfuric
4 acid in concentrations that could cause serious eye injuries and
5 skin irritation through dermal contact. Although the property
6 owner has posted the property to discourage trespassers who might
7 become exposed, the property is located between two heavily used
8 National Forests and direct exposure can not be ruled out as a
9 possibility.

10 Direct ingestion of contaminated fish from the Sacramento
11 River does not pose a present health threat. However, without
12 remediation, IMM releases will continue to deposit effluent in
13 sportfishing areas and the concentration of cadmium will continue
14 to be elevated above normal levels, resulting in potential bioac-
15 cumulation of cadmium in the livers and kidneys of those who in-
16 gest contaminated fish from the river.

17 12. Iron Mountain Mine has been the subject of numerous response
18 actions over the past several decades. The Regional Water
19 Quality Control Board has initiated numerous actions to require
20 the owners and operators to abate the release of hazardous
21 substances. These actions are described in greater detail in EPA
22 Order No. 89-18.

23 EPA has conducted several actions to implement the response
24 actions selected in the 1986 ROD, has initiated a further
25 operable unit feasibility study, and has required Respondents to
26 implement both removal and remedial actions at the site.

27 Remedial actions taken by EPA include the construction of a
28 partial cap over Brick Flat Pit (construction started in July,

1 1988) and construction of a diversion around the slide in
2 Slickrock Creek (construction started in July, 1989). A further
3 remedial action selected in the ROD, construction of a diversion
4 of the Upper Fork of Spring Creek, was implemented by Respondent
5 Rhone-Poulenc acting under a unilateral order, Order No. 90-08.

6 In the winter of 1988-89, EPA operated an emergency
7 treatment plant at the site to reduce the toxicity of the acid
8 mine drainage releases.

9 On August 15, 1989, EPA issued an order requiring
10 Respondents to construct and operate a treatment plant at the
11 site. Among other matters, this order required the construction
12 and operation of a treatment plant capable of removing at least
13 95% of each of the metals copper, cadmium and zinc from a minimum
14 of 60 gallons per minute and 95% of the copper from all flows
15 from the Lawson Portal and Old Mine/No. 8. The plant was to
16 remove metals from these sources from December 1, 1989 through
17 March 31, 1990, inclusive, and Respondents were required to
18 submit workplans for implementation in subsequent years.

19 Paragraph V.C.1 of Order 89-08 required submittal of a workplan
20 for metals removal during the period of implementation of
21 remedial action provided for in the ROD. This paragraph also
22 required that "The workplan should take into account expected
23 variations in acid mine drainage flows and the potential need for
24 additional controls during critical time periods for fishery
25 resource impacts" and "The workplan shall provide some means of
26 disposal for the sludge generated by the treatment process."

27 Respondents continued to operate the plant during the winters of
28 1990-91 and 1991-92. Respondents submitted their proposed

1 operations plan for the winter of 1992-93 on August 18, 1992.
2 That plan proposed treating up to 60 gallons per minute of the
3 acid mine drainage flows from the Lawson Portal and Richmond
4 Portal. The plan provided for treating the most concentrated
5 flows first. Despite a continuing drought in California and the
6 significant overflow of Spring Creek Debris Dam in the spring of
7 1992, the workplan did not provide for additional controls during
8 the coming winter. Nor did Respondent Rhone-Poulenc's proposal
9 provide an engineering analysis of the practicability of
10 increasing capacity as requested in EPA's letter of July 15,
11 1992. EPA performed an engineering analysis of the
12 practicability of expanding treatment capacity, and after
13 consideration of this engineering analysis, the Respondent's plan
14 and past experience in controlling the releases, EPA decided to
15 increase the treatment capacity for the winter of 1992-93. The
16 increase was selected in an Action Memorandum signed on September
17 2, 1992.

18 13. The response action to be implemented pursuant to this order
19 involves the expansion of the treatment capacity of the emergency
20 plant just described, and the disposal of the sludge from the
21 plant.

22 14. Operation of the treatment plant at the increased capacity
23 is expected to reduce the volume of acid mine drainage entering
24 Spring Creek Debris Dam, thereby decreasing reliance on the
25 holding capacity of Spring Creek Debris Dam.

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III. CONCLUSIONS OF LAW AND DETERMINATIONS

15. The Iron Mountain Mine Site is a "facility" as defined in section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

16. Respondents are "persons" as defined in section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

17. Respondents are "liable parties" as defined in section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are subject to this Order under section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

18. The substances listed in paragraph 8 are found at the Site and are "hazardous substances" as defined in section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

19. These hazardous substances have been released, are being released and threaten to continue to be released from the Site into surface waters.

20. The disposal and migration of hazardous substances from the Site are a "release" as defined in section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

21. The potential for future migration of hazardous substances from the Site poses a threat of a "release" as defined in section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

22. The release of the hazardous substances from the facility may present an imminent and substantial endangerment to the public health or welfare or the environment.

23. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment.

IV. NOTICE TO THE STATE

24. On September 2, 1992, prior to issuing this Order, EPA notified the State of California Department of Toxic Substances Control, that EPA would be issuing this Order.

V. ORDER

25. Based on the foregoing, Respondents are hereby ordered, jointly and severally, to comply with the following provisions, including but not limited to all attachments to this Order, all documents incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order, or incorporated by reference into this Order:

VI. DEFINITIONS

26. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

a. "Action Memorandum" shall mean the Action Memorandum signed on September 2, 1992, by Jeff Zelikson, Director, Hazardous Waste Management Division. This action memorandum authorizes the expansion of existing treatment capability at the Site and authorizes the preparation and use of a sludge disposal area.

b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.

1 c. "Day" shall mean a calendar day unless expressly stated
2 to be a working day. "Working day" shall mean a day other than a
3 Saturday, Sunday, or Federal holiday. In computing any period of
4 time under this Order, where the last day would fall on a
5 Saturday, Sunday, or Federal holiday, the period shall run until
6 the end of the next working day.

7 d. "DTSC" shall mean the California Department of Toxic
8 Substances Control.

9 e. "EPA" shall mean the United States Environmental
10 Protection Agency.

11 f. "National Contingency Plan" or "NCP" shall mean the
12 National Contingency Plan promulgated pursuant to Section 105 of
13 CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300,
14 including any amendments thereto.

15 g. "Operation and Maintenance" or "O&M" shall mean all
16 activities required under the Operation and Maintenance Plan
17 developed by Respondent(s) pursuant to this Order and the
18 Statement of Work, and approved by EPA.

19 h. "Paragraph" shall mean a portion of this Order
20 identified by an arabic numeral.

21 i. "Performance Standards" shall mean those cleanup
22 standards, standards of control, and other substantive
23 requirements, criteria or limitations, identified in the Action
24 Memorandum and Statement of Work, that the Work required by this
25 Order must attain and maintain.

26 j. "Record of Decision" or "ROD" shall mean the EPA Record
27 of Decision relating to the Site, October 3, 1986, by Assistant
28 Administrator J. Winston Porter, and all attachments thereto.

1 k. "Response Costs" shall mean all costs, including direct
2 costs, indirect costs, and accrued interest incurred by the
3 United States and the State of California to perform or support
4 response actions at the Site. Response costs include but are not
5 limited to the costs of overseeing the Work, such as the costs of
6 reviewing or developing plans, reports and other items pursuant
7 to this Order and costs associated with verifying the Work.

8 l. "RWQCB" shall mean the Regional Water Quality Control
9 Board, Central Valley Region.

10 m. "Statement of Work" or "SOW" shall mean the statement of
11 work for implementation of the Remedial Design, Remedial Action,
12 and Operation and Maintenance at the Site, as set forth in
13 Attachment A to this Order. The Statement of Work is
14 incorporated into this Order and is an enforceable part of this
15 Order.

16 n. "Section" shall mean a portion of this Order identified
17 by a roman numeral and includes one or more paragraphs.

18 o. "Site" shall mean the Iron Mountain Mine Superfund site,
19 encompassing the approximately 4400 acres of mine property
20 located in Shasta County, California, as described in the Record
21 of Decision, and the areas downgradient and downstream where
22 hazardous substances released from the mines have come to be
23 located.

24 p. "State" shall mean the State of California.

25 q. "United States" shall mean the United States of America.

26 r. "Work" shall mean all activities Respondents are
27 required to perform under this Order, including design,
28 construction, Operation and Maintenance, and any activities

1 required to be undertaken pursuant to Sections VII through XXIV,
2 and XXVII of this Order.

3 VII. NOTICE OF INTENT TO COMPLY

4 27. Respondents shall provide, not later than seven (7) days
5 after the effective date of this Order, written notice to EPA's
6 Remedial Project Manager (RPM) stating whether they will comply
7 with the terms of this Order. If Respondents do not
8 unequivocally commit to perform the work as provided by this
9 Order, they shall be deemed to have violated this Order and to
10 have failed or refused to comply with this Order. Respondent's
11 written notice shall describe, using facts that exist on or prior
12 to the effective date of this Order, any "sufficient cause"
13 defenses asserted by Respondents under sections 106(b) and
14 107(c)(3) of CERCLA. The absence of a response by EPA to the
15 notice required by this paragraph shall not be deemed to be
16 acceptance of Respondent's assertions.

17 VIII. PARTIES BOUND

18 28. This Order shall apply to and be binding upon each
19 Respondent identified in paragraph 3, their directors, officers,
20 employees, agents, successors, and assigns. Respondents are
21 jointly and severally responsible for carrying out all activities
22 required by this Order. No change in the ownership, corporate
23 status, or other control of any Respondents shall alter any of
24 the Respondents' responsibilities under this Order.

25 29. Respondents shall provide a copy of this Order to any
26 prospective owners or successors before a controlling interest in
27 Respondent's assets, property rights, or stock are transferred to
28 the prospective owner or successor. Respondents shall provide a

1 copy of this Order to each contractor, sub-contractor,
2 laboratory, or consultant retained to perform any Work under this
3 Order, within five days after the effective date of this Order or
4 on the date such services are retained, whichever date occurs
5 later. Respondent(s) shall also provide a copy of this Order to
6 each person representing any Respondents with respect to the Site
7 or the Work and shall condition all contracts and subcontracts
8 entered into hereunder upon performance of the Work in conformity
9 with the terms of this Order. With regard to the activities
10 undertaken pursuant to this Order, each contractor and
11 subcontractor shall be deemed to be related by contract to the
12 Respondents within the meaning of section 107(b)(3) of CERCLA, 42
13 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract,
14 Respondents are responsible for compliance with this Order and
15 for ensuring that their contractors, subcontractors and agents
16 comply with this Order, and perform any Work in accordance with
17 this Order.

18 30. Within five (5) days after the effective date of this Order
19 each Respondent that owns real property comprising all or part of
20 the Site shall record a copy or copies of this Order in the
21 appropriate governmental office where land ownership and transfer
22 records are filed or recorded. Respondents shall, within 15 days
23 after the effective date of this Order, send notice of such
24 recording and indexing to EPA.

25 31. Not later than sixty (60) days prior to any transfer of any
26 real property interest in any property included within the Site,
27 Respondents shall submit a true and correct copy of the transfer
28 documents to EPA, and shall identify the transferee by name,

1 principal business address and effective date of the transfer.

2 IX. WORK TO BE PERFORMED

3 32. Respondents shall cooperate with EPA in providing
4 information regarding the Work to the public. As requested by
5 EPA, Respondents shall participate in the preparation of such
6 information for distribution to the public and in public meetings
7 which may be held or sponsored by EPA to explain activities at or
8 relating to the Site.

9 33. All aspects of the Work to be performed by Respondents
10 pursuant to this Order shall be under the direction and
11 supervision of a qualified project manager the selection of which
12 shall be subject to approval by EPA. Within 5 days after the
13 effective date of this Order, Respondents shall notify EPA in
14 writing of the name and qualifications of the project manager,
15 including primary support entities and staff, proposed to be used
16 in carrying out Work under this Order. If at any time
17 Respondents propose to use a different project manager,
18 Respondents shall notify EPA and shall obtain approval from EPA
19 before the new project manager performs any Work under this
20 Order.

21 34. EPA will review Respondents' selection of a project manager
22 according to the terms of this paragraph and Section XIV of this
23 Order. If EPA disapproves of the selection of the project
24 manager, Respondents shall submit to EPA within 30 days after
25 receipt of EPA's disapproval of the project manager previously
26 selected, a list of project managers, including primary support
27 entities and staff, that would be acceptable to Respondents. EPA
28 will thereafter provide written notice to Respondents of the

1 names of the project managers that are acceptable to EPA.
2 Respondents may then select any approved project manager from
3 that list and shall notify EPA of the name of the project manager
4 selected within twenty-one (21) days of EPA's designation of
5 approved project managers.

6 35. Within fifteen (15) days after the effective date of this
7 Order,

8 a. Respondents shall submit for EPA review and
9 approval a workplan and schedule of implementation that
10 meets the requirements of this Order and the Statement
11 of Work provided in Attachment A for the removal of
12 copper, cadmium and zinc from the Richmond "Five Way"
13 AMD discharge, the Richmond "Floor Drainage" AMD
14 discharge and the Lawson portal AMD discharge. The
15 workplan shall provide for treatment capacity capable
16 of removing at least 99% of each of the metals copper,
17 cadmium and zinc from a minimum, of 140 gallons per
18 minute of the AMD flows. The available treatment
19 capacity shall be utilized to treat the most
20 concentrated of the above AMD flows as a priority. All
21 of the above AMD flows in excess of the 140 gallon per
22 minute capacity of the neutralization treatment plant
23 shall be treated for copper removal in the existing
24 copper cementation plant and shall remove a minimum of
25 95% of the copper from the influent AMD flows.

26 The neutralization treatment plant shall provide for
27 metals removal during the period November 1, 1992 through
28 May 30, 1993 inclusive.

1 The workplan shall provide for disposal of the sludge
2 generated by the treatment process. To the extent that the
3 workplan relies upon the existing neutralization treatment
4 facility and the existing sludge drying ponds, the workplan
5 shall provide for any necessary modifications to the
6 treatment facility, excavation of the sludge from past
7 treatment operations and temporary storage or disposal of
8 that sludge. The workplan shall provide for submittal to
9 EPA for review and approval all engineering and drawings
10 related to assuring adequate capacity of the treatment
11 facility and the sludge drying ponds and relocation and
12 storage of the excavated sludge. If the workplan relies
13 upon the storage or disposal of sludge from past years (and
14 from anticipated operation during the 1992-93 water year) in
15 Brick Flat Pit the workplan shall be consistent with the
16 possible long-term use of Brick Flat Pit as a sludge
17 dewatering and disposal facility as per EPA's May 20, 1992
18 Proposed Plan. The workplan shall be consistent with the
19 conceptual designs for such use provided in EPA's May, 1992
20 Feasibility Study, Appendix K (provided as Attachment B to
21 this Order) and the technical design memoranda (provided as
22 Attachment C to this Order, August 20, 1992 "Draft Concept
23 Design," September 1, 1992 "Sludge Disposal Options," and
24 September 2, 1992 "Implementability Analysis").

25 The workplan shall provide for a Sampling and and
26 Analysis Plan and a Quality Assurance Project Plan in
27 accordance with the Statement of Work in Attachment A.

28 The workplan shall require the use of appropriate

1 technologies. EPA has identified neutralization with lime,
2 limestone, magnesium oxide or combinations thereof as
3 appropriate technologies for treatment of Richmond and
4 Lawson portal AMD discharges to reduce copper, cadmium and
5 zinc.

6 The workplan shall provide for treating all acid mine
7 drainage flows from the Richmond and Lawson Portals for
8 copper removal by copper cementation year-round, unless the
9 copper is treated by neutralization precipitation. Copper
10 removal treatment shall remove at a minimum 95% of the
11 copper in the influent flows to the copper treatment plant.

12 The workplan shall provide for copper removal treatment
13 for Old Mine/No. 8 flows year-round. Copper removal
14 treatment shall remove at a minimum 85% of the copper from
15 the influent flows to the treatment plant.

16 The workplan shall provide for monthly reporting in
17 accordance with the Statement of Work in Attachment A.

18 b. Immediately upon receipt of EPA's approval of the
19 workplan and schedule, Respondents shall begin
20 implementation of removal of copper, cadmium and zinc
21 from the Richmond and Lawson portal AMD outflows in
22 accordance with the approval workplan and schedule.

23 X. FAILURE TO ATTAIN PERFORMANCE STANDARDS

24 36. In the event that EPA determines that additional response
25 activities are necessary to meet applicable Performance
26 Standards, EPA may notify Respondents that additional response
27 actions are necessary.

28 37. Unless otherwise stated by EPA, within thirty (30) days of

1 receipt of notice from EPA that additional response activities
2 are necessary to meet any applicable Performance Standards,
3 Respondents shall submit for approval by EPA a work plan for the
4 additional response activities. The plan shall conform to the
5 applicable requirements of sections IX, XVI, and XVII of this
6 Order. Upon EPA's approval of the plan pursuant to Section XIV,
7 Respondents shall implement the plan for additional response
8 activities in accordance with the provisions and schedule
9 contained therein.

10 XI. EPA PERIODIC REVIEW

11 38. Under section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any
12 applicable regulations, EPA may review the Site to assure that
13 the Work performed pursuant to this Order adequately protects
14 human health and the environment. Until such time as EPA
15 certifies completion of the Work, Respondents shall conduct the
16 requisite studies, investigations, or other response actions as
17 determined necessary by EPA in order to permit EPA to conduct the
18 review under section 121(c) of CERCLA. As a result of any review
19 performed under this paragraph, Respondents may be required to
20 perform additional Work or to modify Work previously performed.

21 XII. ADDITIONAL RESPONSE ACTIONS

22 39. EPA may determine that in addition to the Work identified in
23 this Order and attachments to this Order, additional response
24 activities may be necessary to protect human health and the
25 environment. If EPA determines that additional response
26 activities are necessary, EPA may require Respondents to submit a
27 work plan for additional response activities. EPA may also
28 require Respondents to modify any plan, design, or other

1 deliverable required by this Order, including any approved
2 modifications.

3 40. Not later than thirty (30) days after receiving EPA's notice
4 that additional response activities are required pursuant to this
5 Section, Respondents shall submit a work plan for the response
6 activities to EPA for review and approval. Upon approval by EPA,
7 the work plan is incorporated into this Order as a requirement of
8 this Order and shall be an enforceable part of this Order. Upon
9 approval of the work plan by EPA, Respondents shall implement the
10 work plan according to the standards, specifications, and
11 schedule in the approved work plan. Respondents shall notify EPA
12 of their intent to perform such additional response activities
13 within seven (7) days after receipt of EPA's request for
14 additional response activities.

15 XIII. ENDANGERMENT AND EMERGENCY RESPONSE

16 41. In the event of any action or occurrence during the
17 performance of the Work which causes or threatens to cause a
18 release of a hazardous substance or which may present an
19 immediate threat to public health or welfare or the environment,
20 Respondents shall immediately take all appropriate action to
21 prevent, abate, or minimize the threat, and shall immediately
22 notify EPA's Remedial Project Manager (RPM) or, if the RPM is
23 unavailable, EPA's Alternate RPM. If neither of these persons is
24 available Respondents shall notify the EPA Emergency Response
25 Unit, Region 9. Respondents shall take such action in
26 consultation with EPA's RPM and in accordance with all applicable
27 provisions of this Order, including but not limited to the Health
28 and Safety Plan and the Contingency Plan. In the event that

1 Respondents fails to take appropriate response action as required
2 by this Section, and EPA takes that action instead, Respondents
3 shall reimburse EPA for all costs of the response action not
4 inconsistent with the NCP. Respondents shall pay the response
5 costs in the manner described in Section XXIV of this Order,
6 within thirty (30) days of Respondent's receipt of demand for
7 payment and a Regionally-prepared cost summary, which includes
8 all direct and indirect costs incurred by EPA and the state and
9 their contractors of the costs incurred.

10 42. Nothing in the preceding paragraph shall be deemed to limit
11 any authority of the United States to take, direct, or order all
12 appropriate action to protect human health and the environment or
13 to prevent, abate, or minimize an actual or threatened release of
14 hazardous substances on, at, or from the Site.

15 XIV. EPA REVIEW OF SUBMISSIONS

16 43. After review of any deliverable, plan, report or other item
17 which is required to be submitted for review and approval
18 pursuant to this Order, EPA may: (a) approve the submission; (b)
19 approve the submission with modifications; (c) disapprove the
20 submission and direct Respondents to re-submit the document after
21 incorporating EPA's comments; or (d) disapprove the submission
22 and assume responsibility for performing all or any part of the
23 response action. As used in this Order, the terms "approval by
24 EPA," "EPA approval," or a similar term means the action
25 described in paragraphs (a) or (b) of this paragraph.

26 44. In the event of approval or approval with modifications by
27 EPA, Respondents shall proceed to take any action required by the
28 plan, report, or other item, as approved or modified by EPA.

1 45. Upon receipt of a notice of disapproval or a request for a
2 modification, Respondents shall, within twenty-one (21) days or
3 such longer time as specified by EPA in its notice of disapproval
4 or request for modification, correct the deficiencies and
5 resubmit the plan, report, or other item for approval.

6 Notwithstanding the notice of disapproval, or approval with
7 modifications, Respondents shall proceed, at the direction of
8 EPA, to take any action required by any non-deficient portion of
9 the submission.

10 46. If any submission is not approved by EPA, Respondents shall
11 be deemed to be in violation of this Order.

12 XV. PROGRESS REPORTS

13 47. In addition to the other deliverables set forth in this
14 Order, Respondents shall provide monthly progress reports to EPA
15 with respect to actions and activities undertaken pursuant to
16 this Order. The progress reports shall be submitted on or before
17 the 15th day of each month following the effective date of this
18 Order. Respondent's obligation to submit progress reports
19 continues until EPA gives Respondents written notice that such
20 progress reports are no longer necessary. At a minimum these
21 progress reports shall provide the information specified in the
22 Statement of Work.

23 XVI. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS

24 48. Respondents shall use the quality assurance, quality
25 control, and chain of custody procedures described in the "EPA
26 NEIC Policies and Procedures Manual," May 1978, revised May 1986,
27 EPA-330/9-78-001-R, EPA's "Guidelines and Specifications for
28 Preparing Quality Assurance Program Documentation," June 1, 1987,

1 EPA's "Data Quality Objective Guidance," (EPA/540/G87/003 and
2 004) and any amendments to these documents, while conducting all
3 sample collection and analysis activities required herein by any
4 plan. To provide quality assurance and maintain quality control,
5 Respondents shall:

- 6 a. Use only laboratories which have a documented Quality
7 Assurance Program that complies with EPA guidance
8 document QAMS-005/80.
- 9 b. Ensure that the laboratory used by the Respondents for
10 analyses, performs according to a method or methods
11 deemed satisfactory to EPA and submits all protocols to
12 be used for analyses to EPA at least 14 days before
beginning analysis.
- 13 c. Ensure that EPA personnel and EPA's authorized
14 representatives are allowed access to the laboratory
15 and personnel utilized by the Respondents for analyses.

16 49. Respondents shall notify EPA not less than fourteen (14)
17 days in advance of any sample collection activity not otherwise
18 specified in the Statement of Work. At the request of EPA,
19 Respondents shall allow split or duplicate samples to be taken by
20 EPA or its authorized representatives, of any samples collected
21 by Respondents with regard to the Site or pursuant to the
22 implementation of this Order. In addition, EPA shall have the
23 right to take any additional samples that EPA deems necessary.

24 XVII. COMPLIANCE WITH APPLICABLE LAWS

25 50. All activities by Respondents pursuant to this Order shall
26 be performed in accordance with the requirements of all Federal
27 and state laws and regulations. EPA has determined that the
28 activities contemplated by this Order are consistent with the
National Contingency Plan (NCP).

51. Except as provided in section 121(e) of CERCLA and the NCP,
no permit shall be required for any portion of the Work conducted

1 entirely on-Site. Where any portion of the Work requires a
2 Federal or state permit or approval, Respondents shall submit
3 timely applications and take all other actions necessary to
4 obtain and to comply with all such permits or approvals.

5 52. This Order is not, and shall not be construed to be, a
6 permit issued pursuant to any Federal or state statute or
7 regulation.

8 53. All materials removed from the Site shall be disposed of or
9 treated at a facility approved by EPA's RPM and in accordance
10 with section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3); with
11 the U.S. EPA "Revised Off-Site policy," OSWER Directive 9834.11,
12 November 13, 1987; and with all other applicable Federal, state,
13 and local requirements.

14 XVIII. REMEDIAL PROJECT MANAGER

15 54. All communications, whether written or oral, from
16 Respondents to EPA shall be directed to EPA's Remedial Project
17 Manager or Alternate Remedial Project Manager. Respondents
18 shall submit to EPA three copies of all documents, including
19 plans, reports, and other correspondence, which are developed
20 pursuant to this Order, and shall send these documents by
21 certified mail or overnight mail to EPA's Remedial Project
22 Manager:

23 Rick Sugarek

24 United States Environmental Protection Agency

25 Region 9

26 75 Hawthorne Street

27 San Francisco, California 94105

28 (415) 744-2226

1 55. EPA has the unreviewable right to change its Remedial
2 Project Manager. If EPA changes its Remedial Project Manager,
3 EPA will inform Respondents in writing of the name, address, and
4 telephone number of the new Remedial Project Manager.

5 56. EPA's RPM shall have the authority lawfully vested in a
6 Remedial Project Manager (RPM) and On-Scene Coordinator (OSC) by
7 the National Contingency Plan, 40 C.F.R. Part 300. EPA's RPM
8 shall have authority, consistent with the National Contingency
9 Plan, to halt any work required by this Order, and to take any
10 necessary response action.

11 57. Within ten (10) days after the effective date of this Order,
12 Respondents shall designate a Project Coordinator and shall
13 submit the name, address, and telephone number of the Project
14 Coordinator to EPA for review and approval. Respondents' Project
15 Coordinator shall be responsible for overseeing Respondents'
16 implementation of this Order. If Respondents wishes to change
17 their Project Coordinator, Respondents shall provide written
18 notice to EPA, five (5) days prior to changing the Project
19 Coordinator, of the name and qualifications of the new Project
20 Coordinator. Respondents selection of a Project Coordinator
21 shall be subject to EPA approval.

22 XX. SITE ACCESS AND DATA/DOCUMENT AVAILABILITY

23 58. Respondents shall allow EPA and its authorized
24 representatives and contractors to enter and freely move about
25 all property at the Site and off-Site areas subject to or
26 affected by the work under this Order or where documents required
27 to be prepared or maintained by this Order are located, for the
28 purposes of inspecting conditions, activities, the results of

1 activities, records, operating logs, and contracts related to the
2 Site or Respondents and its representatives or contractors
3 pursuant to this Order; reviewing the progress of the Respondents
4 in carrying out the terms of this Order; conducting tests as EPA
5 or its authorized representatives or contractors deem necessary;
6 using a camera, sound recording device or other documentary type
7 equipment; and verifying the data submitted to EPA by
8 Respondents. Respondents shall allow EPA and its authorized
9 representatives to enter the Site, to inspect and copy all
10 records, files, photographs, documents, sampling and monitoring
11 data, and other writings related to work undertaken in carrying
12 out this Order. Nothing herein shall be interpreted as limiting
13 or affecting EPA's right of entry or inspection authority under
14 Federal law.

15 59. Respondents may assert a claim of business confidentiality
16 covering part or all of the information submitted to EPA pursuant
17 to the terms of this Order under 40 C.F.R. § 2.203, provided such
18 claim is not inconsistent with section 104(e)(7) of CERCLA, 42
19 U.S.C. § 9604(e)(7) or other provisions of law. This claim shall
20 be asserted in the manner described by 40 C.F.R. § 2.203(b) and
21 substantiated by Respondents at the time the claim is made.

22 Information determined to be confidential by EPA will be given
23 the protection specified in 40 C.F.R. Part 2. If no such claim
24 accompanies the information when it is submitted to EPA, it may
25 be made available to the public by EPA or the state without
26 further notice to the Respondents. Respondents shall not assert
27 confidentiality claims with respect to any data related to Site
28 conditions, sampling, or monitoring.

1 60. Respondents shall maintain for the period during which this
2 Order is in effect, an index of documents that Respondents claims
3 contain confidential business information. The index shall
4 contain, for each document, the date, author, addressee, and
5 subject of the document. Upon written request from EPA,
6 Respondents shall submit a copy of the index to EPA.

7 XXI. RECORD PRESERVATION

8 61. Respondents shall provide to EPA upon request, copies of all
9 documents and information within their possession and/or control
10 or that of their contractors or agents relating to activities at
11 the Site or to the implementation of this Order, including but
12 not limited to sampling, analysis, chain of custody records,
13 manifests, trucking logs, receipts, reports, sample traffic
14 routing, correspondence, or other documents or information
15 related to the Work. Respondents shall also make available to
16 EPA for purposes of investigation, information gathering, or
17 testimony, their employees, agents, or representatives with
18 knowledge of relevant facts concerning the performance of the
19 Work.

20 62. Until ten (10) years after EPA provides notice pursuant to
21 paragraph , each Respondent shall preserve and retain all records
22 and documents in its possession or control, including the
23 documents in the possession or control of their contractors and
24 agents on and after the effective date of this Order that relate
25 in any manner to the Site. At the conclusion of this document
26 retention period, Respondents shall notify the United States at
27 least ninety (90) calendar days prior to the destruction of any
28 such records or documents, and upon request by the United States,

1 Respondents shall deliver any such records or documents to EPA.

2 63. Until ten (10) years after EPA provides notice pursuant to
3 paragraph of this Order, Respondents shall preserve, and shall
4 instruct their contractors and agents to preserve, all documents,
5 records, and information of whatever kind, nature or description
6 relating to the performance of the Work. Upon the conclusion of
7 this document retention period, Respondents shall notify the
8 United States at least ninety (90) days prior to the destruction
9 of any such records, documents or information, and, upon request
10 of the United States, Respondents shall deliver all such
11 documents, records and information to EPA.

12 64. Within 30 days after the effective date of this Order,
13 Respondents shall submit a written certification to EPA's RPM
14 that they have not altered, mutilated, discarded, destroyed or
15 otherwise disposed of any records, documents or other information
16 relating to their potential liability with regard to the Site
17 since notification of potential liability by the United States or
18 the State or the filing of suit against it regarding the Site.
19 Respondents shall not dispose of any such documents without prior
20 approval by EPA. Respondents shall, upon EPA's request and at no
21 cost to EPA, deliver the documents or copies of the documents to
22 EPA.

23 XXII. DELAY IN PERFORMANCE

24 65. Any delay in performance of this Order that, in EPA's
25 judgment, is not properly justified by Respondents under the
26 terms of this paragraph shall be considered a violation of this
27 Order. Any delay in performance of this Order shall not affect
28 Respondents obligations to fully perform all obligations under

1 the terms and conditions of this Order.

2 66. Respondents shall notify EPA of any delay or anticipated
3 delay in performing any requirement of this Order. Such
4 notification shall be made by telephone to EPA's RPM within forty
5 eight (48) hours after Respondents first knew or should have
6 known that a delay might occur. Respondents shall adopt all
7 reasonable measures to avoid or minimize any such delay. Within
8 five (5) business days after notifying EPA by telephone,
9 Respondents shall provide written notification fully describing
10 the nature of the delay, any justification for delay, any reason
11 why Respondents should not be held strictly accountable for
12 failing to comply with any relevant requirements of this Order,
13 the measures planned and taken to minimize the delay, and a
14 schedule for implementing the measures that will be taken to
15 mitigate the effect of the delay. Increased costs or expenses
16 associated with implementation of the activities called for in
17 this Order is not a justification for any delay in performance.

18 XXIII. ASSURANCE OF ABILITY TO COMPLETE WORK

19 67. Respondents shall demonstrate their ability to complete the
20 Work required by this Order and to pay all claims that arise from
21 the performance of the Work by obtaining and presenting to EPA
22 within thirty (30) days after approval of the Work Plan, one of
23 the following: (1) a performance bond; (2) a letter of credit;
24 (3) a guarantee by a third party; or (4) internal financial
25 information to allow EPA to determine that Respondents has (have)
26 sufficient assets available to perform the Work. Respondents
27 shall demonstrate financial assurance in an amount no less than
28 the estimate of cost for the activities required by the Statement

1 of Work. If Respondents seeks to demonstrate ability to complete
2 the remedial action by means of internal financial information,
3 or by guarantee of a third party, they shall re-submit such
4 information annually, on the anniversary of the effective date of
5 this Order. If EPA determines that such financial information is
6 inadequate, Respondents shall, within thirty (30) days after
7 receipt of EPA's notice of determination, obtain and present to
8 EPA for approval one of the other three forms of financial
9 assurance listed above. (a) At least seven (7) days prior to
10 commencing any work at the Site pursuant to this Order,
11 Respondents shall submit to EPA a certification that Respondents
12 or their contractors and subcontractors have adequate insurance
13 coverage or have indemnification for liabilities for injuries or
14 damages to persons or property which may result from the
15 activities to be conducted by or on behalf of Respondents
16 pursuant to this Order. Respondents shall ensure that such
17 insurance or indemnification is maintained for the duration of
18 the Work required by this Order.

19 XXIV. REIMBURSEMENT OF RESPONSE COSTS

20 68. Respondents shall reimburse EPA, upon written demand, for
21 all response costs incurred by the United States in overseeing
22 Respondent's implementation of the requirements of this Order or
23 in performing any response action which Respondents fails to
24 perform in compliance with this Order. EPA may submit to
25 Respondents on a periodic basis an accounting of all response
26 costs incurred by the United States with respect to this Order.

27 EPA's certified Agency Financial

1 serve as basis for payment demands.

2 69. Respondents shall, within thirty (30) days of receipt of
3 each EPA accounting, remit a certified or cashier's check for the
4 amount of those costs. Interest shall accrue from the later of
5 the date that payment of a specified amount is demanded in
6 writing or the date of the expenditure. The interest rate is the
7 rate established by the Department of the Treasury pursuant to 31
8 U.S.C. § 3717 and 4 C.F.R. § 102.13.

9 70. Checks shall be made payable to the Hazardous Substances
10 Superfund and shall include the name of the Site, the Site
11 identification number, the account number and the title of this
12 Order. Checks shall be forwarded to:

13 U.S. Environmental Protection Agency
14 Superfund Accounting
15 P.O. Box 360863M
Pittsburgh, PA 15251

16 71. Respondents shall send copies of each transmittal letter and
17 check to the EPA's RPM.

18 XXV. UNITED STATES NOT LIABLE

19 72. The United States, by issuance of this Order, assumes no
20 liability for any injuries or damages to persons or property
21 resulting from acts or omissions by Respondents, or its (their)
22 directors, officers, employees, agents, representatives,
23 successors, assigns, contractors, or consultants in carrying out
24 any action or activity pursuant to this Order. Neither EPA nor
25 the United States may be deemed to be a party to any contract
26 entered into by Respondents or its (their) directors, officers,
27 employees, agents, successors, assigns, contractors, or
28 consultants in carrying out any action or activity pursuant to

1 this Order.

2 XXVI. ENFORCEMENT AND RESERVATIONS

3 73. EPA reserves the right to bring an action against
4 Respondents under section 107 of CERCLA, 42 U.S.C. § 9607, for
5 recovery of any response costs incurred by the United States
6 related to this Order and not reimbursed by Respondents. This
7 reservation shall include but not be limited to past costs,
8 direct costs, indirect costs, the costs of oversight, the costs
9 of compiling the cost documentation to support oversight cost
10 demand, as well as accrued interest as provided in section 107(a)
11 of CERCLA.

12 74. Notwithstanding any other provision of this Order, at any
13 time during the response action, EPA may perform its own studies,
14 complete the response action (or any portion of the response
15 action) as provided in CERCLA and the NCP, and seek reimbursement
16 from Respondents for its costs, or seek any other appropriate
17 relief.

18 75. Nothing in this Order shall preclude EPA from taking any
19 additional enforcement actions, including modification of this
20 Order or issuance of additional Orders, and/or additional
21 remedial or removal actions as EPA may deem necessary, or from
22 requiring Respondents in the future to perform additional
23 activities pursuant to CERCLA, 42 U.S.C. § 9606(a), et seq., or
24 any other applicable law. Respondents shall be liable under
25 CERCLA section 107(a), 42 U.S.C. § 9607(a), for the costs of any
26 such additional actions.

27 76. Notwithstanding any provision of this Order, the United
28 States hereby retains all of its information gathering,

1 inspection and enforcement authorities and rights under CERCLA,
2 RCRA and any other applicable statutes or regulations.

3 77. Respondents shall be subject to civil penalties under
4 section 106(b) of CERCLA, 42 U.S.C. § 9606(b), of not more than
5 \$25,000 for each day in which Respondents willfully violates, or
6 fails or refuses to comply with this Order without sufficient
7 cause. In addition, failure to properly provide response action
8 under this Order, or any portion hereof, without sufficient
9 cause, may result in liability under section 107(c)(3) of CERCLA,
10 42 U.S.C. § 9607(c)(3), for punitive damages in an amount at
11 least equal to, and not more than three times the amount of any
12 costs incurred by the Fund as a result of such failure to take
13 proper action.

14 78. Nothing in this Order shall constitute or be construed as a
15 release from any claim, cause of action or demand in law or
16 equity against any person for any liability it may have arising
17 out of or relating in any way to the Site.

18 79. If a court issues an order that invalidates any provision of
19 this Order or finds that Respondents has sufficient cause not to
20 comply with one or more provisions of this Order, Respondents
21 shall remain bound to comply with all provisions of this Order
22 not invalidated by the court's order.

23 XXVII. ADMINISTRATIVE RECORD

24 80. Upon request by EPA, Respondents must submit to EPA all
25 documents related to the selection of the response action for
26 possible inclusion in the administrative record file.

27 XXVIII. EFFECTIVE DATE AND COMPUTATION OF TIME

28 81. This Order shall be effective 15 days after the Order is

signed by the Director, Hazardous Waste Management Division. All times for performance of ordered activities shall be calculated from this effective date.

XXIX. OPPORTUNITY TO CONFER

82. Respondents may, within ten (10) days after the date this Order is signed, request a conference with EPA's Director, Hazardous Waste Management Division, to discuss this Order. If requested, the conference shall occur no later than ten (10) days after the request is made and shall be held at EPA Region 9, 75 Hawthorne Street, San Francisco, CA. The Director may designate an alternate to meet with Respondents in the event of a schedule conflict.

83. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondents intends to comply with this Order. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondents a right to seek review of this Order, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondent's request, Respondents may appear in person or by an attorney or other representative.

84. Requests for a conference must be by telephone followed by written confirmation mailed that day to

Rick Sugarek
United States Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, California 94105
(415) 744-2226

XXIX. EFFECT ON PREVIOUS ORDERS

85. Nothing in this order shall be construed to excuse any non-compliance with any previous order issued to Respondents, including Order Nos. 89-18, 90-08 and 91-18.

86. Upon Respondents' notification to EPA of their willingness to comply with this Order, the terms of this Order shall supersede the requirements of Order No. 89-18, Section V, paragraph C(2), with respect to Respondents' obligation to implement the workplan required by Order No. 89-18, Section V, paragraph (c)(1).

So Ordered, this 2nd day of September, 1992.

BY: 

Jeff Zelikson
Director, Hazardous Waste Management Division
U.S. Environmental Protection Agency, Region 9